

Title (en)

FERRITE HEAT RESISTANT STEEL

Title (de)

HITZEBESTÄNDIGER FERRITSTAHL

Title (fr)

ACIER FERRITE RÉSISTANT À LA CHALEUR

Publication

EP 2157202 A4 20110914 (EN)

Application

EP 08764663 A 20080526

Priority

- JP 2008059630 W 20080526
- JP 2007148063 A 20070604
- JP 2008035788 A 20080218

Abstract (en)

[origin: EP2157202A1] There is provided a heat resistant ferritic steel, excellent in the weld crack resistance of the HAZ and creep strength. A high-Cr heat resistant ferritic steel is characterized by consisting of, by mass%, Si: more than 0.1% and not more than 1.0%, Mn: 2.0% or less, Co: 1 to 8%, Cr: 7 to 13%, V: 0.05 to 0.4%, Nb: 0.01 to 0.09%, either one or both of Mo and W: 0.5 to 4% as a total, B: 0.005 to 0.025%, Al: 0.03% or less, and N: 0.003 to 0.06%, and containing C in an amount satisfying Expression (1), the balance being Fe and impurities, and O, P and S as impurities being such that O: 0.02% or less, P: 0.03% or less, and S: 0.02% or less, respectively, $0.005 \leq C \leq 5 / 3 \times B + 0.085$ in which C and B represent the content of each element (mass%). Furthermore, the high-Cr heat resistant ferritic steel may contain one or more kinds selected from the group consisting of Nd, Ta, Ca and Mg.

IPC 8 full level

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CPC (source: EP KR US)

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C22C 38/30 (2013.01 - EP KR US); **C22C 38/32** (2013.01 - EP KR US); **C22C 38/38** (2013.01 - KR)

Citation (search report)

- [X] EP 1304394 A1 20030423 - SUMITOMO METAL IND [JP]
- [X] JP H0971846 A 19970318 - SUMITOMO METAL IND
- [A] EP 0896071 A1 19990210 - MITSUBISHI HEAVY IND LTD [JP]
- [A] US 2002020473 A1 20020221 - SAWARAGI YOSHIATSU [JP], et al
- [A] JP 2000248337 A 20000912 - KANSAI ELECTRIC POWER CO, et al
- See references of WO 2008149703A1

Cited by

EP2938751B1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

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